

Title (en)

METHODS AND SYSTEMS FOR DETECTING WHETHER A SEAT BELT IS USED IN A VEHICLE

Title (de)

VERFAHREN UND SYSTEME ZUR ERKENNUNG, OB EIN SICHERHEITSGURT IN EINEM FAHRZEUG VERWENDET WIRD

Title (fr)

PROCÉDÉS ET SYSTÈMES PERMETTANT DE DÉTECTER SI UNE CEINTURE DE SÉCURITÉ EST UTILISÉE DANS UN VÉHICULE

Publication

EP 3848257 A1 20210714 (EN)

Application

EP 20214085 A 20201215

Priority

EP 20150594 A 20200107

Abstract (en)

A computer implemented method for detecting whether a seat belt is used in a vehicle comprises the following steps carried out by computer hardware components: acquiring an image of an interior of the vehicle; determining a plurality of sub-images based on the image; detecting, for at least one of the sub-images, whether a portion of the seat belt is present in the respective sub-image; and determining whether the seat belt is used based on the detecting.

IPC 8 full level

B60R 22/48 (2006.01); **B60R 21/015** (2006.01)

CPC (source: CN EP US)

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Citation (search report)

- [XAI] EP 2937251 A1 20151028 - VOLVO CAR CORP [SE]
- [XAI] WO 2018213346 A1 20181122 - JOYSON SAFETY SYSTEMS ACQUISITION LLC [US]

Cited by

EP4187503A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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